Achieving Sustainable Development Goals 3 In The Context Of Covid-19 Pandemic Perceptions Of Frontline Health Care Managers Of Primary Health Care In South-South Nigeria

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Abstract

This study investigated the knowledge of frontline health managers of a Primary Health Care system, on Sustainable Development Goal 3, and their perception on attaining the goal with the current COVID-19 pandemic. The study was conducted using a cross-sectional study design conducted at the Primary Health Care (PHC) system in 23 Local Government Areas of Rivers State, Nigeria in April 2020. Participants included all heads of PHC facilities and program officers. Only those with formal excuses from duty were excluded from the study. A total of 340 respondents took part in the study. A technology-assisted structured questionnaire were used. Data were analyzed using SPSS v. 25, p≤0.05. The majority of the respondents were 36-50 years (74%), females (66%), and had tertiary education (89%). Results obtained from the study indicate that a majority had over five-year work experience (72%) and more respondents were program officers (58%). A significant difference was observed in 'knowledge of SDGs' among heads of health facilities and program officers (p=0.042). With the current COVID-19 pandemic, the majority stated that it is 'unlikely' to attain the SDGs by 2030 and that it is 'unlikely' that the pandemic would improve political will and partnership, two essentials for implementing SDG3 within the PHC system. The present study concludes that health managers have a crucial role to play in attaining SDG3 and their opinion towards attaining the goal needs to be well considered. Stakeholders' analyses are required for the effective implementation of SDG3 programs within the PHC system, during and after the COVID-19 pandemic

Keywords: Sustainable Development Goals, COVID-19, Primary Health Care

INTRODUCTION

In 2015, the world leaders agreed on 17 Sustainable Development Goals (SDGs) for a fairer and healthier world, by 2030.[1] The transition from the Millennium Development Goals (MDGs) to SDGs was laudable, despite the obvious fact that countries had attained the MDGs at different levels.[2] For instance, the health systems of low and lower-middle-income countries (LLMICs) strived to attain MDGs 4, 5 and 6, but the double burden of diseases and other limiting factors affected many of these countries, especially those in the sub-Saharan African region.[3] One of the major limiting factors then and still in existence, is the funding of the public health systems in LLMICs.[4] The World Health Organization's (WHO) recommendation of public spending on healthcare has been challenging to achieve in LLMICs and the impact on the health of the people has resulted in high morbidity and mortality rates compared to high-income countries.[5,6] Although some progress has been made in the health sector of sub-Saharan African countries, the changes have not been sufficient to close the global health equity gap, as well as in-country differences caused by geographical location (rural-urban) and wealth index divide.[7] By the end of the MDGs in 2015, there was the need for a sustainability plan for achievements as well as improvement in the health and other sectors for global development.

The direct health goal of the SDGs is goal three, which seeks to ensure healthy lives and promote well-being for all, of all ages. It is however impossible to achieve this goal without the other SDGs. Like the MDGs, the SDGs are all interrelated and aimed at achieving global wellbeing and equity.[1,8] The first and second goals, address poverty and hunger which are directly related to the cause and treatment of diseases. The fifth and sixth goals on gender equality; clean water and sanitation are very important for access to health care services and the prevention of communicable diseases. Sustainable Development Goal 17, has shown in recent times, the importance of partnership in global development.[9] For example, the COVID-19 pandemic, has revealed that SDG 17 is vital in achieving SDG3. The provision of COVID-19 vaccines and other aids across nations to ensure healthy lives is further proof of the need to take care of people in different geographical locations towards achieving SDG 3 by 2030. The world is indeed a global village and disease transmission across and within continents is much easier now than ever before. The present global situation however raises concern about how well on track the SDGs are. On World Health Day, 2020, Antonio Guterres, Secretary-General of the United Nations, remarked that the 2030 target date for achieving the SDGs was "*tremendously off track*," with between 720 and 811 million people globally facing hunger.[10] This, further exemplifies how all SDGs like the MDGs are in one way or the other important for achieving global health.

In the absence of a global pandemic, achieving targets of the health and health-related MDGs was challenging for the sub-Saharan Africa region in particular. Now, with the occurrence of the COVID-19 pandemic, there are concerns about achieving the SDGs in many LLMICs.[11] The health systems in these countries have certainly been impacted heavily by the pandemic and in different ways too. In terms of human resources, frontline health workers have had to risk their lives in caring for others and the effect of the pandemic across the globe, on these brave groups of workers cannot be quantified.[12] As health workers settle into the new world; previously set national, regional and global health goals such as the SDGs need to be evaluated in terms of the impact of the pandemic on the progress of these goals.

Many countries align their health care system in three levels; the primary, secondary and tertiary healthcare facilities and ideally, with a two-way referral among the strata. Since its onset in 1978, the Primary Health Care system has remained a reliable platform for the delivery of health services, especially in LLMICs.[8,13] Primary health care (PHC) played a significant role in attaining the MDGs in many settings and is expected to aid in the achievement of SDGs.[14,15] The 2018 Astana declaration further emphasized the role of PHC in achieving the SDGs, *"…* PHC is a cornerstone of a sustainable health system for universal health coverage (UHC) and health-related Sustainable Development Goals" [16]. This also suggests the need for adequate knowledge among health care providers in the PHC sector to properly execute the SDGs within their jurisdictions.[16]

The COVID-19 pandemic has affected many global and national health programs. The progress on the SDGs in particular is of concern in the health sector because many programs and services have been affected by the pandemic.[14] The gains in maternal and child health at the end of the MDGs and in the early years of the SDG may be affected by the pandemic and other health programs have likewise been affected due to the additional demands of controlling the COVID-19 pandemic.[17] A major concern in the health systems is the feasibility of attaining the SDGs in the context of a global pandemic and would SDG 3 in particular and other health-related SDGs be achieved in LLMICs. These concerns may be addressed with the use of practical and feasible monitoring and evaluation tools, adapted to fit each country's health information system.[18,19] The Primary health care frontline managers are also a reliable source of obtaining current information on programs geared towards controlling the COVID-19 pandemic, programs being implemented for the SDGs as well as the impact of COVID-19 on the SDGs. This paper seeks to investigate this topical public health concern in a study population directly affected by both the pandemic and SDGs implementation.

METHODS:

Study Setting

The study area was conducted in Rivers state, which is located in the south-south geopolitical region of Nigeria and home to over six million people, a projected population figure from the 2006 National Census.[20] The state has 23 Local Government Areas (LGA), the majority of which are rural in terms of facilities and population size. Rivers state especially the rural communities contributes significantly to the economy of Nigeria, because of its oil deposits. The state capital, Port Harcourt, is cosmopolitan with many local and international travels. The indigenous people of Rivers State are however mostly civil servants, farmers and fishermen/women. The native culture is extremely rich in terms of the use and trade of textiles and seafood. The health system comprises the formal and informal health systems. The formal health sector

is in line with the three-tier system of national health care and is made up of primary, secondary and tertiary health care facilities. The Primary Health Care (PHC) system is at the grass-root level, managed by the Rivers State Primary Health Care Management Board which is directly overseen by the Permanent Secretary. There are over 300 PHC facilities located across the 23 Local Government Areas (LGAs) of Rivers State.[21] Each LGA has a Medical Officer of Health (MOH), who serves as the head of the PHC system, an assistant PHC coordinator (usually a nurse) and LGA focal persons in charge of the different components of PHC. Each LGA is made up of wards and there is at least one PHC in an LGA ward. The PHC facility also has an administrative head who is either a medical doctor or a Community Health Officer (CHO) depending on the geographical location and the population density. The heads of PHC facilities and LGA focal persons make up the frontline health managers in the PHC system of the state and they are the target population for this study.[21] The private health sector is made up of clinics and hospitals while the informal health sector is made up of patent medicine vendors, religious and traditional healers.

Study design and conduct of the study: A cross-sectional study design was employed for the study and all the operational/frontline managers made up of all the heads of PHC facilities and program officers in the 23 LGAs were included in the study. Only those with severe medical conditions or on annual leave/excuse duties were excluded. A structured survey questionnaire was used for data collection and it had three major sections: the socio-demographic and occupational history; knowledge of SDGs; and respondents' perception of achieving SDGs with the COVID-19 pandemic. The socio-demographics covered age, sex and level of education. The occupational history questions were on current work position, designation and years of experience as a frontline health manager. For knowledge, a scoring system was used to classify responses into 'good' (aggregated score greater than or equal to 3 points per item) and 'poor' knowledge (aggregated score less than 3 points per item). For perception, a four-point Likert scale (very unlikely, unlikely, likely and very likely) was used. All questions were scripted into smartphone mobile devices and completed surveys were sent to the server as real-time data. Ten research assistants who were experienced in the use of technology-assisted surveys were trained for data collection. The research assistants pre-tested the survey instrument and the result of the exercise was used to modify the questionnaire appropriately. Data were analyzed with SPSS version 25 and p-value ≤0.05.

Ethical Considerations

Ethical approval for the study was obtained from the Rivers State Hospitals Management Board Ethics Committee with approval number: RSHMB/RSHREC/11.17/8/104. Each participant gave their written informed consent before the commencement of the data collection. Before this, participants were informed of the benefits of the study and assured of confidentiality. Data was stored in a password-protected computer, accessible only to the researchers.

RESULTS

The geographical location of the PHCs spanned across rural and urban areas of Rivers State, with four Local Government Areas (LGA) being urban and 19 rural. Health activities in these different locations were fairly even and all frontline officers meet monthly to discuss the progress and challenges being faced with executing SDG3 and other health plans/activities in their areas of jurisdiction.

Table 1 shows that majority of our respondents were females and in the 36-50 years age group. Nearly all respondents had tertiary education and they were deemed highly knowledgeable.

Table 1: Socio-demographics of Frontline Health Managers

	Variable	n(%)
Age	21-35 years	16(4.2)
	36-50 years	278(73.7)
	51-60 years	83(22.0)
Gender	Male	129(34.2)
	Female	248(65.8)
Level of Education	Post-tertiary	40(10.6)
	Tertiary	334(88.6)
	Senior secondary	3(0.8)

Table 2 shows the occupational history of the respondents with the majority being programs officers in 23 LGAs and the others being operational managers in charge of primary health care (PHC) facilities. The heads of facilities were all doctors and the majority are males. The program officers' group was made up of other PHC cadre of workers including nurses, health information officers and Community Health Officers. Nearly three-quarters of the respondents had greater than five years of work experience as frontline health care managers.

Table 2: Occupational history of Frontline Health Managers

	Variables	n(%)
Current Position	Head of Facility	159(42.2)
	LGA Program Officer	218(57.8)
Designation	Medical Officer	41(12.7)
	Nurse or Midwife	35(10.8)
	Community Health Officer	147(45.4)
	Community Health Extension Worker	72(22.2)
	Health Information Officers	29(9.0)
Years of Experience	0-2 years	30(8.0)
	2-5 years	74(19.6)
	>5 years	273(72.4)

Table 3 shows the response to the first outcome variable which was 'knowledge of SDG3 and other health-related SDGs'. Questions on these variables were summed up to give a score of 3. The majority had poor knowledge of SDG3 and other SDGs. There was a significant difference in knowledge of SDG3 and other health-related SDGs between Heads of Facilities (doctors) and LGA program officers, p = 0.042.

Table 4 shows the responses to the likelihood of attaining SDG3 by the year 2030. A four-level Likert scale was used to assess the responses of the study participants and the majority of both the heads of facilities and LGA program officers stated that it is '*very unlikely* to attain the SDG3 by 2030.

Table 5 displays the responses to the second outcome variable which was the perception of frontline health care managers on the influence of the COVID-19 pandemic in executing SDG3 programs in the state. The majority of respondents stated that it is '*unlikely*' that the COVID-19 pandemic would be the only factor affecting the implementation of SDG3 plans. The majority, also stated that it is '*unlikely*' that the COVID-19 pandemic would improve political will and partnership with external donors.

Table 3: Knowledge of SDG and background of sociodemographic and occupational history

		Knowledge		Chi-Square Test p-value (X^2, p)
	Variables	Good n (%)	Poor n (%)	
Age (yrs)	21 – 35	5(5.0)	11(4.0)	1.4002, 0.4965
	36 – 50	70(69.3)	208(75.3)	
	51-60	26(25.7)	57(20.7)	
Gender	Male	39(38.6)	90(32.6)	1.1846, 0.2764
	Female	62(61.4)	186(67.4)	
Education Level	Post-tertiary	17(16.8)	23(8.3)	
	Tertiary	84 (83.2)	250 (90.6)	
	Senior secondary	0 (0.0)	3 (1.1)	
Position	Head of Facility	34(33.7)	125(45.3)	4.0984, 0.042*
	LGA Program Officer	67(66.3)	151(54.7)	
Job Description	Medical Officer	9(8.9)	32(11.6)	3.5394, 0.6174
	Nurse or Midwife	8(7.9)	27(9.8)	
	Community Health Officer	38(37.6)	109(39.5)	
	Community Health Extension Worker	18(17.8)	54(19.6)	
	Health Information Officer	11(10.9)	18(6.5)	
	Others	17(16.8)	36(13.0)	
Years of experience	0 - 2	9(8.9)	21(7.6)	0.6674, 0.7162
	2 - 5	22(21.8)	52(18.8)	
	>5	70(69.3)	203(73.6)	

Table 4: Attainment of SDG3 by occupational background and history

Variables	Very Unlikely	Unlikely	Likely	Total
Occupational History				
0-2 years	5(8.5)	17(6.9)	8(11.0)	30(8.0)
2-5 years	13(22.0)	57(23.3)	4(5.5)	74(19.6)
>5 years	41(69.5)	171(69.8)	61(83.6)	273(72.4)
Current Position				
Head of facility	118(40.5)	27(46.6)	14(50.0)	159(42.2)
LGA Program Officer	173(59.5)	31(53.4)	14(50.0)	218(57.8)

Table 5: Perception of frontline managers on implementation of SDG3 programs in the context of COVID-19

Variables	Very Unlikely	Unlikely	Likely	Very Likely
COVID-19 will distract from implementing the SDGs	57(15.1)	173(45.9)	133(35.3)	14(3.7)
COVID-19 will improve political will	39(10.3)	183(48.5)	123(32.7)	32(8.5)
COVID-19 will improve partnership with external donors	103(27.3)	186(49.4)	74(19.6)	14(3.7)

DISCUSSION

Knowledge of SDGs and their targets were low among the frontline health managers with only about a quarter of respondents having '*good knowledge'* of the 17 SDGs and the targets. This finding is higher than the proportion reported by Talpada and Sarate, (2019) among peripheral health workers in India, where none of the study population participants had '*good knowledge'* of SDGs.[22] It is however much lower than the proportion of '*good knowledge'* reported by Bello and colleagues in a similar study in another state of Nigeria.[23] Limited re-training of frontline health workers on SDGs especially in recent times with the distraction caused by the COVID-19 pandemic may account for our finding.

There was no significant difference in the knowledge of SDGs among the respondents with regards to age group, gender, job description or years of experience as frontline health workers. However, a significant difference was observed in '*good/poor knowledge'* in positions currently held by the health workers. A higher proportion of LGA officers had scores of '*good knowledge'* compared to heads of facilities who are mostly medical doctors. Often, LGA officers in the PHC context are field workers and they are directly involved with implementing developmental health and health-related goals in the communities compared to medical officers, whose duties are more clinical and managerial.

The majority of the respondents stated that it is *'unlikely to attain the SDGs by 2030'*. None of the respondents selected the '*very likely to attain SDGs by 2030'* option. The LGA program officers were more optimistic than heads of facilities in selecting '*likely to attain the SDGs'* choice. The situation analysis of SDGs progress would expectedly be clearer to the LGA program officers since they are more involved in a wider range of health and health-related activities in the communities than the heads of facilities. The former also often collaborate with their colleagues from other units such as education, agriculture and women's affairs, as inter-sectoral partners in conducting different community programs.

We selected questions on three domains related to the COVID-19 pandemic, PHC system and SDG 3. Altogether, the majority of the respondents stated that the COVID-19 pandemic is '*unlikely'* to distract the implementation of programs for SDGs, meaning that programs already planned for attaining SDG3 within the PHC system would continue into their execution phases. The majority of the respondents however also stated that the COVID-19 pandemic is '*unlikely'* to improve political will and partnership with external donors. Political will is one of the four pillars of the PHC system while 'strengthening the means of implementation and revitalising the global partnership for sustainable development is the final goal for sustainable developments. Political will remains a major concern in low and lower-middle-income countries; the World Health Organization encourages adequate funding based on the Gross Domestic Product of individual nations but thus far, this has been challenging to achieve in many sub-Saharan African nations.[24] Without a commitment from the government in the health sector, achieving the full PHC components and SDGs will remain a challenge, especially with a pandemic such as COVID-19. The UN 2020 SDG report already highlights that the progress and success recorded so far in maternal mortality rates, infant mortality rates, communicable

and non-communicable diseases especially in LLMICs could decline due to the COVID-19 pandemic.[17] Before the COVID-19 pandemic, there were also reports on the negative state of health-related indices. Nigeria for instance is listed as one of the worst affected countries in terms of food availability and sustainability speaking directly to SDG2 and indirectly to SDG3 because of the relationship between health and nutrition.[17] The respondents stated that it is unlikely that it is only the COVID-19 pandemic that would affect the country from attaining SDGs by 2030. Some researchers have decried the uncertainty surrounding the achievement of sustainable development goals despite the wealth of health knowledge about disease aetiology currently available.[17,25] This supports the lack of political will observed in this study that could derail the achievement of the SDGs in Nigeria. Another concern raised is the lack of partnership which the COVID-19 pandemic has not been able to bridge. Generally, efforts have been observed in the distribution of COVID-19 vaccines however inequity persists across and within nations of the world.

CONCLUSION

For over four decades, PHC has remained a reliable platform for implementing national, regional and international goals in the health and health-related sectors. The knowledge and perceptions of attaining developmental goals among the frontline health workers, who are the foot soldiers, is critical to achieving in particular, important SDGs health targets. Training and retraining of health workers on SDGs in the PHC centres of Rivers State are highly recommended. There may be other factors other than COVID-19 affecting the achievement of SDG3 by 2030 but the pandemic may be distracting from identifying these factors. More operational research is required in identifying and addressing the important but hidden factors.

Conflict of interest: None

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